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Donald K. Forest

Group Art Unit:

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Examiner:

Regina Liang

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Title: DATA ENTRY METHOD  
AND APPARATUS

REPLY BRIEF

Honorable Commissioner of Patents and Trademarks  
Washington, D.C. 20231

Sir:

An appeal was filed in the above-identified Application on 12 April 1999 and received by the PTO on 14 April 1999. Pursuant to the appeal, Appellant filed an Appeal Brief, Applicant Document No. 032-36 on 13 September 1999. The Examiner responded with a Notification of non-compliance with 37 C.F.R. 1.192(c). Applicant then filed an Amended Appeal Brief, Applicant Document No. 032-39 on 14 October 1999. The Examiner filed an Examiner's Answer on 3 January 2000, exceeding the two months permitted under MPEP 1208. This Reply Brief is filed in response to the Answer pursuant to 37 C.F.R. §1.193(b).

To the extent necessary, a petition for an extension of time under 37 C.F.R. §1.136 is hereby made.

The Commissioner is hereby authorized to charge any fees due under 37 C.F.R. §1.16 or §1.17 during the pendency of the present Application, including the appeal fee, fee for filing a brief in support of an appeal fee, and extension of time fees, to Deposit Account No. 06-1553.

Appellant is prosecuting this application *pro se*.

Appellant respectfully solicits the Board's consideration of this Appeal and entry of this Reply Brief into the record of this application.

**I. REPLY TO GROUNDS OF REJECTION**

In the Amended Appeal Brief Appellant has already addressed and replied to each of the

grounds of rejection.

## II. ARGUMENT

The structure of the Argument section of this Reply Brief is intended to facilitate finding all pertinent arguments for each claim. The structure parallels the structure of the Argument section of the Amended Appeal Brief. In this Reply Brief, argument begins with Issues Concerning Many Claims. Thereafter, argument is divided by independent claim. Each independent claim is a heading. Under each independent claim heading is a discussion of all issues pertaining to that claim and the claims depending therefrom, with the exception of those addressed in the Issues Concerning Many Claims section. Under each issue heading can be found either argument concerning that issue or a reference to that argument elsewhere in the Amended Appeal Brief or this Reply Brief.

The Examiner has rejected all pending claims and has agreed that Appellant's statement of the issues is correct (Answer, p.2, line 5). MPEP 1206(A)(10)(11) requires that the Examiner include a statement in the Response to Argument section of whether the Examiner disagrees with each of the contentions of Appellant in the appeal brief and an explanation of the reasons for disagreement with any such contention. Despite this requirement, and the rejection of all claims, the Examiner did not respond to certain issues raised in the Amended Appeal Brief.. Where the Examiner does not address an issue, Appellant so notes under the discussion of that issue herein.

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#### Issues Concerning Many Claims

1. Whether the Examiner has rebutted Appellant's evidence of discovery of the source of the problem.

*In re Spinnoble*, 405 F.2d 578, 585, 160 U.S.P.Q. 237, 243 (CCPA 1969), cited in the Amended Appeal Brief, is directly on point on the substance and process of the determination of patentability where Appellant asserts that he has discovered the source of a problem. *Spinnoble* parallels the present case in: (a) the examiner's method of analysis; (b) Appellant's discovery of the cause of a known problem; and (c) the examiner's failure to consider Appellant's discovery of the cause of the problem. Because *Spinnoble* is on point and controlling, it is discussed in detail below.

*Spinnoble* was an appeal from the decision of the Board of Appeals, affirming the examiner's rejection under 35 U.S.C. 103 of the sole remaining claim in appellant's application for "Mixing Vial Construction" as "unpatentable over" either Bujan or Lockhart in view of Jensen and either Parsons et al. or Umbdenstock.

In *Spinnoble*, the invention related "to an improvement in a plural compartment mixing vial construction and, more particularly, relates to an improved center seal plug which may be placed between the compartments for temporarily isolating same from each other." *Spinnoble*, 405 F.2d 580. The examiner found all the **structural** elements of the claimed invention in the prior art: (1) a two compartment mixing vial (disclosed in both Bujan and Lockhart references); (2) the vial having a construction between the compartments defining a seat against which a natural (Bujan) or synthetic

rubber (Jensen) plug having a silicon coating (Parsons) was seated to thereby isolate the compartments from each other; (3) one of the compartments is adapted to contain a solid material, such as a desiccated pharmaceutical product (disclosed in both Bujan and Lockhart references); (4) the other compartment is adapted to contain a liquid, such as an aqueous diluent or solvent for the solid material (also disclosed in both Bujan and Lockhart references); and (5) a piston is snugly and slidably disposed at one end of the liquid-containing compartment and is arranged so that it can be manually forced into said compartment to pressurize the liquid therein and thereby exert sufficient hydraulic pressure on the plug to discharge it into the solids-containing compartment whereupon the liquid enters the compartment and is mixed with the solid material therein (disclosed in both Bujan and Lockhart references). The examiner found that the problem addressed by the appellant was well known: vial constructions of this type allowed an excessive amount of moisture to be transmitted from the liquid-containing compartment into the solids-containing compartment and, since many sterile powder formulations are sensitive to water, the medicinal agents become unstable during prolonged storage, particularly when stored at elevated temperatures. *Sponnoble*, 405 F.2d 580.

In *Sponnoble*, the appellant solved the problem by forming the center seal plug from butyl rubber and the coating it with a thin film of a silicone.

In affirming the examiner's rejection, the Board quoted with approval a portion of the examiner's Answer:

The Bujan and Lockhart references show appellants' specific vial shape and center plug arrangement which is conceded by appellant. The use of butyl rubber as the material used for the center plug is believed obvious in view of Jensen whose seal 44 is constructed of butyl rubber and which is stated to be impervious to steam. In regard to the feature of coating the center plug with silicone for use as a lubricant or moisture inhibitor, such a feature is notoriously old in the art. Lockhart ... discloses the employment of silicone mixed with the plug for lubricating purposes. It is believed obvious to coat silicone on a sealing plug rather than to incorporate silicone into the rubber if so desired. That this is conventional is shown by the patent to Parsons ....

The decision of the Board further stated:

Jensen clearly teaches in the art the use of butyl rubber for its steam, i.e., moisture, impervious property ... and ... in view thereof it would have been obvious prior

to appellant entering the field to make the center plug 17 of Bujan of butyl rubber so as to render it impervious to moisture, the very purpose for which appellant employs butyl rubber.

5 In the instant case appellant has added a silicone coating to render the plug easier to insert or remove. This, we agree with the Examiner, is taught by Parsons.... The use of a silicone oil coating for easing the insertion and removal of the center of the plug of Bujan, made of butyl rubber as taught by Jensen, would appear to be obvious even to the uninitiated having these references before them.....

10 Appellant has, in effect, merely combined features old in the art for their known purpose without producing anything beyond the results inherently expected therefrom.

*Sponnoble*, 405 F.2d 584-585.

The Court reversed:

15 We believe that the Board of Appeals has erred in its application of 35 USC 103 notwithstanding the last above-quoted statement, which, even if correct, does not conclusively establish that the invention is obvious under the patent law. A patentable invention, within the ambit of 35 USC 103, may result even if the inventor has, in effect, merely combined features, old in the art, for their known purpose, without producing anything beyond the results inherent in their use. Although we believe that appellant, here, has actually done more than this in making his combination, we also believe that a more proper, albeit not exclusive, inquiry in a case such as this is to look further as to the reasons for making the combination.

25 It should not be necessary for this court to point out that a patentable invention may lie in the discovery of the source of a problem even though the remedy may be obvious once the source of the problem is identified. This is part of the "subject matter as a whole" which should always be considered in determining the obviousness of an invention under 35 USC 103. *In re Antonson*, 47 CCPA 740, 272 F.2d 948, 124 USPQ 132; *In re Linnert*, 50 CCPA 753, 309 F.2d 498, 135 USPQ 307. The court must be ever alert not to read obviousness into an invention on the basis of the applicant's own statements; that is, we must view the prior art without reading into that art appellant's teachings. *In re Murray*, 46 CCPA 905, 268 F.2d 226, 122 USPQ 364; *In re Sporck*, 49

CCPA 1039, 301 F.2d 686, 133 USPQ 360. The issue, then, is whether the teachings of the prior art would, in and of themselves and without the benefits of appellant's disclosure, make the invention as a whole, obvious. *In re Leonor*, 55 CCPA 1198, 395 F.2d 801, 158 USPQ 20.

5 Applying these principles to the case at bar and by reference to appellant's specification, we find a clear indication that he discovered the source of the problem:

10 The problem of providing a structure for temporarily isolating a compartment containing a solid pharmaceutical product from a compartment containing an aqueous solution to prevent water transference therebetween has long been recognized by workers in the art and great amounts of time, effort and expense have been expended to solve same but without commercially acceptable results, insofar as I am aware, prior to the present invention. It was believed that the water passed through the microscopic cracks and crevices in the mating walls of the vial and the plug which are  
15 inherently present as a result of the manufacturing operation thereof.

Accordingly, the art has attempted to solve this problem by using a more deformable rubber plug and applying an increased pressure thereon when seating same against the internal wall of the vial so that the plug will deform  
20 to more completely fill such cracks and crevices. The art has also increased the length of the plug and the seat portion of the vial in order to provide a longer surface of contact between the seat and the plug to minimize such moisture transmission. Neither of these expedients has successfully solved the afore-mentioned problem....

25 Contrary to the opinion of the other workers in the art, I have discovered that a primary cause of moisture transmission through natural rubber center seal plugs is the permeability of the plugs themselves to passage of moisture. That is, a substantial amount of the water which moves from the water-containing to the solids-containing compartment passes  
30 through the natural rubber plug rather than between the plug and the wall of the vial and, thus, no matter how tight a seal is provided between the plug and the vial, a substantial amount of moisture will be transferred, which amount has, in the past, been sufficient to deleteriously affect the solid



contents of the other compartment, particularly where such contents are solid pharmaceutical ingredients sensitive to moisture.

5 The specification reveals: (1) that the problem facing the industry was due to moisture transmission into the lower compartment of the mixing vial; (2) that the appellant discovered the cause of the moisture transmission to be the passage of moisture through, rather than around, the center plug; and (3) that appellant solved the problem by fabricating a center seal plug of butyl rubber with a silicone coating. The crux of the matter in this case is the discovery by appellant that passage through the center plug was  
10 a major cause of moisture transmission.

Jensen disclosed that butyl rubber is impervious to steam, but it does not necessarily follow, as the solicitor argues, that "Certainly, it would be obvious to the ordinary artisan to utilize butyl rubber to take advantage of its moisture resistance as taught by the prior art since moisture transfer was a recognized problem with center  
15 sealing plugs." This reasoning merely begs the question. The fact that moisture transmission was a recognized problem does not establish that knowledge of moisture transmission through, rather than around, the plug, was likewise either recognized or obvious. **The question here is whether the prior art recognized the cause of the problem.**

20 There is no teaching in the prior art which would suggest the necessity of selecting a center seal plug material which is more impervious to liquid water than Bujan's or Lockhart's natural rubber. As we pointed out earlier, Bujan makes no mention of any moisture transmission problem, and Lockhart's only discussion of the problem refers to moisture passage between the plug and the vial caused by "microscopic fissures inherently present in the surfaces of molded and/or blown glass and similar materials."  
25 Jensen's disclosure of the impermeability permeability [sic] of butyl rubber to steam does not render appellant's invention obvious since neither it nor any other reference suggests that greater impermeability to liquid water is desired or necessary in a center seal plug. Likewise, Parsons' mention of moisture permeability does not appear to be directed to  
30 permeability to liquid water. That a natural rubber plug might be permeable to steam in no way establishes or makes obvious its permeability to liquid water; thus the cause of the problem is not suggested by the prior art.

*Sponnoble*, 405 F.2d 585-587, emphasis added.

*Sponnoble* parallels the instant application. In both cases: (a) the Examiner asserted that each of the claimed elements was old; (b) the Appellant recognized and addressed a known problem; (c) the Appellant discovered at least one cause of the problem; and (d) the Examiner failed to consider Appellant's discovery of the cause of the problem. The discussion below focuses on the crux of the matter, elements (b) and (c) above, as developed both in *Sponnoble* and the present application.

In *Sponnoble*, the known problem was moisture transmission into the lower compartment of the mixing vial. *Sponnoble's* appellant discovered that passage through the center plug was a major cause of moisture transmission.

In the instant application, the problem is impaired fine motor control. See Specification, p.2, lines 3-13; p.2, line 32 - p.3, line 6; p.6, line 5 - p.7, line 21; p.11, lines 9-10, 20-21; p.13, line 14 - p.14, line 18; p.15, lines 1-2, 31-32; p.17, lines 7-13; p.20, lines 1-4; p.28, lines 13-16; p. 81, lines 3-8; p. 90, lines 18-20). Appellant discovered and identified two distinct motor problems contributing to impaired fine motor, specifically overshoot (sometimes referred to in the Specification as the inability to stop motion), and involuntary movement accompanying voluntary movement. These and other causes of impaired fine motor control are described and diagramed in the Specification. See Specification, p.2, lines 3- 13; p.2, line 31 - p.3, line 6; p.13, line 14 - p.14, line 18; p.16, line 15 - p.17, line 13; p.31, lines 6-10; p.46, lines 1-26 including discussion of the overshoot point 0156 in Fig. 17; p.61, line 31 - p.64, line 3 including discussion of the confining polygons in Figs. 31, 32 and 33; and p.71, lines 7-21 including the description of the actual cursor path 2412 in Fig. 42.

Many of the objects of the present invention are directed at accommodating involuntary movement accompanying voluntary movement or impaired ability to stop motion. Because individuals lacking the ability to cleanly stop motion may nonetheless possess relatively unimpaired directional control (Specification, p.13, lines 28-29), an object designed to accommodate impaired ability to cleanly stop motion may be expressed as an object to exploit residual directional control. Pertinent objects of the invention, with citations to where they appear in the Specification, are to:

1. "facilitate menu selection by an operator having impaired ability to stop motion" (Specification, p.11, lines 12-13);
2. "facilitate computer access for an individual who cannot stop movement cleanly" (Specification, p.15, lines 26-27);
3. "make use, in computer access, of relatively unimpaired directional control in persons having impaired fine motor control" (Specification, p.15, lines 1-2);

4. "use an operator's directional control in computer access" (Specification, p.16, line 7).
5. "speed up selection of an option from a menu by an operator having impaired ability to operate a switch while the operator simultaneously keeps a cursor location within a region on a display" (Specification, p.15, lines 9-11);
- 5 6. "facilitate menu selection by an operator having impaired ability to maintain a body member in a steady position" (Specification, p.11, lines 9-10);

The Examiner states that "it has been held that the mere fact that the references relied on by the Patent and Trademark Office fail to evince an **appreciation** of the problem identified and solved by the applicant, is not, standing alone, conclusive evidence of nonobviousness of the claimed subject matter." (Answer, p.8, lines 14, emphasis added). First, the issue is not an **appreciation** of the problem. The issue is recognizing the **causes** of the problem. The statement is not responsive to the issue of the patentable significance of Appellant's discovery of **causes** of the problem. Consequently, assuming *arguendo* that the Examiner's statement of the law is correct, it is irrelevant. Second, the Examiner fails to cite any authority for the statement of law. Without a citation Appellant cannot determine (a) whether the law as stated by the Examiner is a truly a holding, or merely dicta, and (b) still good law, not having been overruled or limited since the decision was rendered. Third, assuming *arguendo* that the Examiner's statement of the law is relevant, correct, and still good law, the question is not whether the failure of the references relied on by the Examiner is **conclusive** evidence of nonobviousness. The question is whether Appellant's discovery of the causes of the problem, evidenced by statements in the Specification, illustrations in the Drawings, and the Video Tape described in the Amended Appeal Brief, p.10-12, either prevents establishment of a *prima facie* case of obviousness or overcomes the *prima facie* case of obviousness relied on by the Examiner (Answer, p.21, lines 4-8). Since the Examiner has failed to produce a single reference on the **cause** of the problem, Appellant believes that the Examiner has not made a *prima facie* case for obviousness.

2. Whether the Examiner did or properly can reject claims because of their "unreasonable number".

It is inequitable and unfair for the Examiner to make **any** argument based upon the "unreasonable number of claims in the file" (Answer, p.8, lines 8-9) because this situation is, in considerable part, of the Examiner's own making. The Examiner *sua sponte* substantially **increased** the number of claims under consideration.

The instant application was originally assigned to Examiner Ulysses Weldon. On 22 March

1996, Examiner Weldon issued an election of species requirement, identifying 15 separate species. Appellant elected one of these species. Over the course of prosecution, up until 27 May 1998, 98 claims (claims 2-5, 7-72, 74-79, 81-84, 87-89, 92-93, 95-97, 99-100, 102-103, 105, 107-108, and 111) were withdrawn from consideration by either Examiner Weldon or Examiner Liang for reading on non-elected species. Up until 27 My 1998, Appellant had canceled 29 of these claims (claims 2-5, 7-18, 42, 59-60, 81, 92-92, 95-97, 99-100, 107, and 111), leaving  $98 - 29 = 69$  non-canceled claims withdrawn from consideration in the case. In the Office Action of 27 May 1998, Examiner Liang on **her own motion** withdrew the restriction requirement (Office Action of 27 May 1998, p.2, line 1), thus effectively **adding** these 69 claims for consideration in this case.

The Examiner has not rejected any claim due to there being an unreasonable number of claims in the case. The sole basis for rejection is 35 U.S.C. §103. Answer, p.3, lines 7-13. No previous office action including the final rejection (Office Action of 12 November 1998, "Final") made mention of an unreasonable number of claims. Thus, if the Examiner intends this as a ground of rejection, it is a new ground of rejection first appearing in the Answer contrary to 37 C.F.R. 1.193(a)(2).

The number of claims in this case is not unreasonable in view of the nature and scope of Appellant's invention. There are numerous aspects to the invention and many aspects are capable of being combined with other aspects; claims are required to cover the various aspects and important combinations thereof. Some aspects are susceptible to multiple embodiments; claims are required to cover variations competitors may devise. The environment of or use to which the invention is put may vary; claims are required for differing environments and uses. Infringement damages vary depending upon the elements recited in an infringed claim; claims reciting different combinations of elements are therefore needed. Defenses available to infringement of method claims necessitate the inclusion of apparatus claims, and vice-versa. The evolving construction of means-plus-function language requires that claims incorporating means-plus-function language be supplemented with claims omitting this language. Given all these variables and claim drafting objectives, "a patentee may fairly be entitled to bend sails upon many yards." *Parke-Davis & Co. v. H.K. Mulford Co.*, 189 F. 95, 103 (C.C.S.D.N.Y. 1911) (L. Hand, J.)

### 3. Whether Ito and Lazzaro are combinable.

The case cited by the Examiner in support of the combination of Ito and Lazzaro is not applicable to this combination. The Examiner states that the test of combinability is "what the combined teachings of the references would have suggested to those of ordinary skill in the art",

relying on *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA, 1981). The *Keller* holding, however, is limited to the combination of art in **analogous environments**. 642 F.2d 424. In *Keller*, the Court held that a cardiac pacemaker designed for therapeutic use, e.g. implantation in a patient, was sufficiently analogous to a cardiac pacemaker designed for laboratory use, e.g. a research tool. .  
5 These environments are much closer than the environments of Lazzaro and Ito, each of whose environments is described in the Amended Appeal Brief, p.49-50.

4. Whether Ito and Atkinson are combinable.

In determining the teaching of a particular reference, the Examiner must consider each  
10 reference **in its entirety**. *W.L. Gore & Assocs. v. Garlock, Inc.*, 721 F.2d 1540, 1547, 220 USPQ 303 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984). In *Gore*, the appellant claimed, in claim 19 of US patent 3,953,566, a process for the production of a polymer of tetrafluoroethylene by stretching highly crystalline unsintered polytetrafluoroethylene (PTFE) (known by the trademark TEFLON). Claim 19 specified stretching to a final length five times the original length. The District Court, in an  
15 infringement action, held claim 19 obvious under 35 U.S.C. §103 in view of two references, Sumitomo and Markwood. Sumitomo's disclosure concerned stretching unsintered PTFE and taught that there is a length limit to stretching unsintered PTFE, but and did not suggest what that limit might be. Markwood taught that non-PTFE thermoplastics can be stretched rapidly and to extended lengths. The Court of Appeals for the Federal Circuit, in reversing the District Court, found that it was error  
20 to combine Sumitomo and Markwood because "the pairing disregarded Sumitomo's limited length of stretch teaching". *Gore, supra* at 1550. Thus, key teachings of each of the combined references cannot be disregarded.

The Examiner in the instant case has disregarded certain key teachings of each of the combined references. The Examiner combines Ito, a reference teaching menu options which are: (a) static, (b)  
25 non-linear, and (c) displayed **outside** the display, with Atkinson, a reference teaching menu options which are: (a) dynamic, (b) linear, and (c) displayed **on** the display. Each of these three enumerated features of Ito is integral to achieving Ito's objectives, as described in the Amended Appeal Brief, p.49, lines 12-24; and in connection with issue 4, Amended Appeal Brief, p.50-51. The proposed combination of Ito and Atkinson disregards Ito's teaching of the advantages of **static** menu items  
30 displayed **outside** the display.

5. Whether hindsight reasoning is permissible.

In response to Appellant's argument of impermissible hindsight reasoning in the Examiner's

finding of obviousness, the Examiner did not contest that she employed hindsight reasoning, but claimed that this was a permissible reconstruction of references, citing dicta from *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971) (Answer, p.14, lines 3-9).

Appellant urges that the clear weight of federal appellate decisions prohibits hindsight reasoning in decisions of obviousness under 35 U.S.C. §103. Since the *McLaughlin* decision 29 years ago, no federal appellate court, including the Court of Custom and Patent Appeals, the federal Courts of Appeals including the Court of Appeals for the Federal Circuit, and the Supreme Court, has indicated or held that any kind or degree of hindsight reasoning is permissible, according to the Appellant's electronic search of the holdings of these Courts. While *McLaughlin* has been cited by these Courts, it has not been cited for the proposition that hindsight is permissible. To the contrary, appellate federal courts have repeatedly held that hindsight reconstruction is an improper basis for a determination of obviousness. *In re Deuel et. al.*, 51 F.3d 1552, 34 USPQ 2d 210 (Fed.Cir. 1995); *In re Fritch*, 972 F.2d 1260, 23 USPQ 2d 1780 (Fed.Cir. 1992); *In re Bond*, 910 F.2d 831, 15 USPQ 2d 1566 (Fed.Cir. 1990); *In re Fine*, 837 F.2d 1071, 5 USPQ 2d 1596 (Fed.Cir. 1988); *Grain Processing Corp. v. American Maize Products Co.*, 840 F.2d 902, 907, 5 USPQ 2d 1788 (Fed.Cir. 1988).

Appellant urges that the rejection of each claim is based on impermissible hindsight reasoning. The Examiner admitted that hindsight reasoning underlies the rejection of independent claims 33 and 114 (Answer, p.11, lines 5-11; p.14, lines 3-9, respectively).

6. Whether the Examiner has made a decision on patentability based on all the evidence of record.

The Examiner has a duty to consider all the evidence of record in determining patentability, *In re Oetiker*, 977 F.2d 1443, 24 USPQ.2d 1443 (Fed. Cir. 1992), and to provide a statement identifying the reasons the evidence fails to show patentability of the claimed invention. *Demaco Corp. v. F. Von Langsdorff Licensing Ltd.*, 851 F.2d 1387, 7 USPQ.2d 1222 (Fed. Cir.1988), *cert. denied*, 488 U.S. 956 (1988); MPEP 716.01(d). The Examiner has not fulfilled either duty.

Appellant submitted objective evidence in rebuttal of the *prima facie* case of obviousness, specifically Video Tape 032-27 evidencing the new and unexpected results described in the Amended Appeal Brief, p.6-12. The Video Tape was entered into the record of the application (Decision on Petition Filed Under 37 C.F.R. 1.181, dated 16 August 1999, p.3, lines 37 - 41). There is no indication in the Answer that the Examiner actually considered the Video Tape evidence, nor is there a statement in the Answer identifying the reasons the evidence fails to show patentability of the claimed invention.

Independent claim 19 and its dependent claims

7. With respect to claim 19, whether any of the new results show the claimed invention as a whole to be nonobvious.

5 The Answer does not address issues 7-10 in the Amended Appeal Brief, p.54-56.

8. With respect to claim 19, whether any of the applied art suggests the claimed invention as a solution to the problem of computer access for individuals with cerebral palsy of the severity shown on the Video Tape.

10 A claimed invention is nonobvious where nothing in the references alone or together suggest the claimed invention as a solution to the problem addressed. *Lindermann Maschinenfabrik GMBH v. American Hoise & Derrick Co.*, 730 F.2d 1452, 221 USPQ 481, 488 (Fed.Cir. 1984).

15 The problem addressed by the invention is computer access for individuals with severe cerebral palsy, such as the individual shown in the Video Tape. These individuals cannot effectively use a conventional keyboard, pointing device or on-screen keyboard. They often use a computer access method called "scanning". Scanning and its attendant drawbacks are described in the Specification, p.8, line 17 - p.9, line 22. The individual shown on the Video Tape uses single switch scanning to access his computer and voice output device when not using the system shown in the Video Tape.

20 Nothing in any of the applied art alone or together suggests the claimed invention as a solution to the problem of computer access for individuals with cerebral palsy of the severity shown on the Video Tape. Lazzaro is the only applied art disclosing computer access for disabled individuals. The system disclosed in Lazzaro, i.e. the Pointer Systems optical head pointer and on-screen keyboard (Lazzaro, p.62, lines 11-12), is directed to individuals with high level spinal chord injury. Typically these individuals have **normal** head control, although they may be paralyzed below the neck. An individual with severe cerebral palsy does not have normal motor control of any of his limbs or head, and consequently cannot use the system disclosed in Lazzaro. Currently this population is consigned to the scanning access method with its many drawbacks. The claimed invention is intended to address the computer access needs of this population.

- 25 30 9. With respect to claim 19, whether the claim requires a confiner adjacent selectable regions.

The Examiner's rejection of claim 19 is apparently based on the Examiner's belief that "appellant is reading limitations into the claim". (Answer, p.10, line 8). Specifically, the Examiner states that "[n]owhere in the claim does it require a confiner adjacent selectable regions" (Answer,

p.10, lines 8-9). The Examiner has misread the claim.

The apparatus of claim 19 includes “(a) means for displaying a plurality of selectable regions **within** a first polygon intersecting the display ... **each selectable region adjacent a side of the first polygon**” and “(c) control means for ... **confining at least part of the first cursor to the first polygon**”. Structurally the first polygon is a border because each selectable region is adjacent a side of the first polygon. Functionally the first polygon is a confiner since, in concert with the control means, it confines at least part of the first cursor. Thus, the first polygon is **a confiner adjacent selectable regions**.

10. With respect to claim 19, whether Atkinson teaches selectable regions **adjacent** a confiner.

Atkinson does not teach a confiner adjacent selectable regions for two reasons. First, Atkinson does not disclose or suggest that the display border prevents cursor movements outside the display screen. Although the Examiner draws this conclusion, the Answer is silent as to the factual basis for this conclusion in Atkinson or elsewhere. Second, assuming *arguendo* that Atkinson's screen border is a confiner, Atkinson does not disclose or suggest command options **adjacent** a screen border. In all Atkinson's Figures showing a screen border, i.e. Atkinson's Figures 1A, 1B, 2, 5 and 6, no command option or item is adjacent a screen border.

Whether or not Atkinson discloses the **function** of selecting a menu option associated with an overshoot selectable region is irrelevant. In making an obviousness determination, “[i]t is not pertinent whether the prior art device possesses the functional characteristics of the claimed invention if the reference does not describe or suggest its structure.” *In re Mills*, 916 F.2d 680, 682, 16 USPQ 2d 1430 (Fed. Cir. 1990).

11. With respect to claim 20, whether Ito teaches a circumscribing plurality of selectable regions **on** the display.

In determining the teaching of a particular reference, the Examiner must consider each reference **in its entirety**. *W.L. Gore & Assocs. v. Garlock, Inc.*, 721 F.2d 1540, 1547, 220 USPQ 303 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984). The Examiner has refused to consider Ito in its entirety by expressly ignoring Ito's Fig. 12 in determining what the Ito reference teaches. “The menu items locate [sic] at outside the display in Fig. 12 of Ito is **irrelevant** since Fig. 2 of Ito teaches the plurality of selectable regions are *on* the display screen.” (Final, p.7, lines 2-3, bold emphasis added).



12. With respect to each of claims 21, 23, 24, 25, 26, 27, 82, 28, 29, and 32, whether the Examiner has made a *prima facie* case for obviousness.

The Answer does not address issues 12-24 in the Amended Appeal Brief, p.57-61.

5 Independent claim 33 and its dependent claims

13. With respect to claim 33, what “adjacent” means.

Adjacent means abutting. Grove, Philip Babcock, Ed., *Webster's Third New International Dictionary of the English Language Unabridged*, Merriam-Webster, Inc., Springfield, MA, 1993.

10 The Examiner's statement that Ito's FIG. 2 shows a selectable region that is “both adjacent and on the display area” (Answer, p.10, line 3) is incorrect. The selection regions shown in Ito's FIG. 2 do not **abut** the display range of LCD 3; they are on it.

15 The apparatus of claim 33 includes “(c) means for at least partially delimiting ... (1) a plurality of first selectable regions, ... each of the first selectable regions including a first subregion adjacent the display area and a first subregion on the display area”. In other words, each of the first selectable regions includes **two** subregions: (1) a first subregion **adjacent** the display area, and (2) a first subregion **on** the display area. These are different subregions, as indicated by the use of the indefinite article “a” preceding each of them and by their different locations. Thus each first selectable region is partially outside the display area (the first selectable region's first subregion adjacent the display area), and partially on the display area (the first selectable region's first subregion on the display area).

20 14. With respect to claim 33, whether the Examiner has considered the new results.

25 The Examiner has failed to consider the new results of the apparatus of claim 33, apparently assuming that new results must appear in the claim. Concerning claim 33, the Examiner states “nowhere **in the claim** does it require accommodating overshoot, tremor drift, or impaired [sic].” (Answer p.11, line 5, emphasis added). The Examiner is in error regarding the law.

The Examiner is required to consider new results of the claimed invention, regardless of whether the new results appear in the claims. *United States v. Adams*, 383 U.S. 39, 148 USPQ 479 (1966); *In re Soni*, 54 F.3d 746, 34 USPQ 2d 1684 (Fed. Cir. 1995); *In re Lunsford*, 357 F.2d 380, 384, 143 USPQ 716, 720 (CCPA 1966). The *Adams* case is particularly instructive in this regard.

30 In *Adams*, the appellant contested the obviousness of claim 1 of U.S. Patent No. 2,322,210 which read:

1. A battery comprising a liquid container, a magnesium electropositive electrode

inside the container and having an exterior terminal, a fused cuprous chloride electronegative electrode, and a terminal connected with said electronegative electrode.

5 The U.S. Supreme Court held the claim to be nonobvious and patentable because of the unexpected results the claimed invention produced.

10 The Adams invention was the first practical, water-activated, constant potential battery which could be fabricated and stored indefinitely without any fluid in its cells. It was activated within 30 minutes merely by adding water. Once activated, the battery continued to deliver electricity at a voltage which remained essentially constant regardless of the rate at which current was withdrawn. Furthermore, its capacity for generating current was exceptionally large in comparison to its size and weight. The battery was also quite efficient in that substantially its full capacity  
15 could be obtained over a wide range of currents. One disadvantage, however, was that once activated the battery could not be shut off; the chemical reactions in the battery continued even though current was not withdrawn. Nevertheless, these chemical reactions were highly exothermic, liberating large quantities of heat during operation. As a result, the battery performed with little effect on its voltage or current  
20 in very low temperatures. Relatively high temperatures would not damage the battery. Consequently, the battery was operable from 65 degrees below zero Fahrenheit to 200 degrees Fahrenheit.

25 *Adams, supra*, 383 U.S. at 43.

None of the functional characteristics of the battery of claim 1 are recited in the claim. All were considered by the Court in determining obviousness.

15. With respect to each of claims 34-38, whether the stated grounds of rejection regarding displaying different displayed sequences is proper.  
30

The Examiner states "In response to appellant's argument regarding the claimed limitation of the dependent claims for displaying different displayed sequences on the display screen, this is not allowable since it is obvious to modify the device of Ito as modified to display any kinds of display

sequences on the display screen since it is the function of a display to display information.” (Answer, p.11, lines 11-15). Issue 24 of the Amended Appeal Brief, p.61, addresses the propriety of this blanket ground of rejection.

5 Claim 37, depending from claim 34 which depends from claim 33, illustrates the error in the Examiner's position. In claim 34, two of the characters in the group of characters each have an associated frequency of use. The distance from the first subregion on the display area to the **more frequently** used of the two characters is **less** than the distance from the first subregion on the display area to the **less frequently** used of the two characters. Since movement time is a function of movement distance, in accord with Fitts' Law, this apparatus speeds the selection process. The Examiner applies **no** art disclosing the claimed limitation and thus has failed to make a *prima facie* case of obviousness for claim 37.

16. With respect to each of claims 34-38, whether the Examiner has made a *prima facie* case for obviousness.

15 The Answer does not address issues 33-37 in the Amended Appeal Brief, p.65-66.

#### Independent claim 114 and its dependent claims

In the Amended Appeal Brief Appellant inadvertently mixed the discussion of issues raised by claim 115, which requires a dwell event, in the issues relating to its parent claim 114, which does not require a dwell event. The errors in the Amended Appeal Brief under the discussion of claim 114 are listed immediately below. Additional issues relating to claim 115 follow the discussion of claim 114 herein.

- (a) Issue 46 in the Amended Appeal Brief, p.70, applies to claim 115, not claim 114; and
- (b) Issue 52 in the Amended Appeal Brief, p.73, applies to claim 115, not claim 114;

25 17. With respect to claim 114, whether any of the new results show the claimed invention as a whole to be nonobvious.

The Answer does not address issues 38-42 in the Amended Appeal Brief, p.67-68.

30 18. With respect to claim 114, whether any of the applied art suggests the claimed invention as a solution to the problem of computer access for individuals with cerebral palsy of the severity shown on the Video Tape.

This issue has already been discussed in connection with claim 19 above.

19. With respect to claim 114, whether Ito teaches away from selectable regions **adjacent a confiner**.

Ito explicitly teaches away from the modification proposed by the Examiner. In the Answer the Examiner creates a confiner from the **display border** of Ito. "[R]eferring to Fig. 2 of Ito ... "when the display boarder in Fig. 2 of Ito to be modified as a confiner, Fig. 2 of Ito would have a confiner ... which read on the first alternative language as claimed [sic]" (Answer, p.12, lines 9-18). Assuming that the display border referred to and modified by the Examiner is the border of the display range of Ito's LCD 3, in the proposed modification, the user is then prevented from moving Ito's stylus outside the display range of LCD 3, i.e. to the area of the coordinate detection range of tablet 2 extending beyond LCD 3. Ito teaches explicitly against such a modification. Ito's purpose is that "data and commands can be input by **making use of that part of the coordinate detection area which does not overlap the display area**. Thus, the coordinate detection area can be used effectively." (Ito, col. 2, lines 27-31, emphasis added). One of the object's of Ito's invention is "to provide an integrated display/input device wherein a coordinate detection area of a table can be used effectively." (Ito, col. 2, lines 10-12).

20. With respect to claim 114, whether Ito teaches away from a confiner.

In the Answer, the Examiner stated that "Fig. 5 of Ito **also** reads on the claimed second alternative language" (Answer, p. 12, lines 18-19, emphasis added), implying that Fig. 5 reads on the first claimed alternative language, i.e. a confiner. The confiner of claim 114 "prevent[s] the movement related signal indicating the location from moving beyond the external boundary of the selectable region".

Ito not only fails to disclose or suggest a confiner, the Ito reference teaches away from modifying Ito's device 1 to include a confiner. The housing of Ito's integrated display/input device 1 is not a confiner; it does not prevent Ito's stylus from moving beyond the coordinate detection range of tablet 2. Indeed, Ito uses stylus switch closure **outside** the location detection range of the tablet to signal a cancel command (Ito, Fig. 6; col. 4, lines 51-59; col. 6, lines 3-8). Combining a confiner with Ito renders Ito inoperable for the cancel command and compromises Ito's purpose of increasing the quantity of data on a single screen. Therefore, Ito teaches away from this combination. *Gordon, supra*.

21. With respect to claim 114, whether the Examiner provided a motivation to combine Ito and Atkinson.

“When the incentive to combine the teachings of the references is not readily apparent, it is the duty of the examiner to explain why combination of the reference teachings is proper.... Absent such reasons or incentives, the teachings of the references are not combinable.” *Ex parte Skinner*, 2 USPQ 2d 1788, 1790 (BPAI 1987).

5           The Examiner has failed to provide a reason or incentive to make the proposed combination. In the Answer, the Examiner found that Atkinson teaches a confiner (Answer, p.10, lines 11-12) and then combined Atkinson with Ito. The Examiner concluded tautologically that “when the display boarder in Fig. 2 of Ito to be modified as a confiner, Fig. 2 of Ito would have a confiner [sic] ...” (Answer, p.12, lines 16-17). Absent from the Answer is the required reason, incentive or motivation  
10           to make this combination.

22.   With respect to claim 114, whether Ito's Fig. 5 teaches an **activation area** beyond the display screen.

15           In the Final, the Examiner conclusorily stated that Fig. 5 is “within the scope of independent claim... 114” (Final, p.6, lines 5-8). In the Answer, the Examiner elucidated: “Fig. 5 of Ito shows that each of the selectable regions 25A, 25B, 25C has mark boundaries for delimiting selectable regions adjacent the periphery of the working region (display region), each of the selectable regions is selectable by the user and having an **activation area** extending beyond the external boundary of the selectable region and beyond the display screen” (Answer, p.12, line 19 - p.13, line 3, emphasis  
20           added). This is incorrect.

Each of Ito's selection regions 25A, 25B and 25C has an associated label. Ito's labels, shown in FIG. 5, are not activation areas. Ito describes Fig. 5: “The upper surface of the **casing** of transparent tablet 2 **bears labels** indicating the commands assigned to the regions 25A, 25B and 25C.” (Ito, col. 4, lines 36-38, emphasis added). Ito's FIG. 1 shows an “integrated display/input device 1 is constituted  
25           by superposing [sic] a transparent tablet 2 on an LCD (liquid-crystal display) 3” (Ito, col. 1, lines 29-31). Ito's FIG. 3, a cross-sectional view of the integrated display/input device 1 in FIG. 1 (Ito col. 1, lines 49-50) to which Ito's invention is directed (Ito, col. 1, lines 7-10), clearly shows that the coordinate detection range of tablet 2 fits **under** the casing of the device 1. Ito teaches that the usable coordinate detection range **ends** at the casing of the transparent tablet. “[n]o coordinates are detected  
30           ... when the stylus pen 4 is clicked on an area outside the location detection range of tablet 2” (Ito, col. 4, lines 51-56). Thus the top of the casing does not detect coordinates indicated by Ito's stylus. The labels are **outside** the coordinate detection range of tablet 2 (Ito, FIG. 2). Ito's labels are static, hence they should be “used commonly in a plurality of application programs.” (Ito col. 8, lines 16-17).

Consequently, Ito's user cannot make a menu selection by touching the stylus to the associated label. Thus, Ito's device lacks an "activation area extending beyond the external boundary of the selectable region and beyond the display screen".

In contrast, in the claimed voice output system each selectable region of has either a confiner (discussed in connection with this claim above and in connection with claims 19 and 114 in the Amended Appeal Brief) or an "**activation area** extending beyond the external boundary of the selectable region and beyond the display screen". The voice output device is "responsive to a first intersection of the movement related signal and the first particular selectable region or the **activation area** associated therewith, thereby providing the user with the ability to select the first particular selectable region while overshooting the first particular selectable region..." The function enabled by the activation area, accommodating overshoot, is explicitly claimed. None of the applied art, including Ito, provides the claimed functionality.

23. With respect to claim 114, whether Atkinson teaches selectable regions **adjacent a confiner**. This issue has already been discussed in connection with claim 19 above.

24. With respect to claim 114, whether Ito and Baker are combinable.

The Examiner explains that both Ito and Baker are in the field of Appellant's endeavor **solely** because "Ito and Baker both are directed to display and input device" (Answer, p.14, line 3). This reasoning is flawed on its face. By this reasoning, (1) a voice recognition system using a microphone for input, (2) an eye gaze system using an oculometer for input, and (3) a data entry system using a punched card reader for input are all in the same field of endeavor, assuming that all systems also include a display.

The Examiner has not responded to Appellant's argument that Baker teaches away from the combination of Baker and Ito to form the claimed invention.

25. With respect to claim 114, whether Baker teaches away from **simultaneously** displayed menu options .

The Answer does not address issue 45 in the Amended Appeal Brief, p.69.

26. With respect to the first embodiment of claim 114, whether he proposed combination teaches circumscribing selectable regions **on** the display screen.

This issue has already been discussed in connection with claim 20 above.

27. With respect to the first embodiment of claim 114, whether the Final provides a motivation to make the proposed modification of Ito.

The Answer does not address issue 49 in the Amended Appeal Brief, p.72.

5 28. With respect to claim 114, whether the rejection evidences improper hindsight reconstruction of references.

This issue has already been discussed in the Issues Concerning Many Claims section above.

10 29. With respect to the first embodiment of claim 114, whether Ito's Fig. 5 teaches selectable regions on the display screen.

In the first embodiment of claim 114, the working region is smaller than the display screen. Since the selectable regions are outside the working region and adjacent the periphery of the working region, they are, at least in part, **on** the display screen. Ito's Fig. 5 the selection regions are entirely outside the display range of LCD 3. Thus, Ito's Fig. 5 does not read on the first embodiment of claim 15 114.

30. With respect to the first embodiment of claim 114, whether Ito teaches selectable regions **adjacent** a confiner and **on** the display.

The Answer does not address issue 14 in the Amended Appeal Brief, p.59.

20 31. With respect to the first embodiment of claim 114, whether the proposed combination teaches selectable regions **partially on and partially outside** the display.

This issue is discussed in connection with claim 106 below.

25 32. With respect to the second embodiment of claim 114, whether Baker teaches a selectable region including a subregion **outside** the display screen.

In addressing Appellant's argument on this issue, the Examiner refers (Answer, p.14, lines 9-11) to the Examiner's remarks regarding a second alternative language in claim 114. The second alternative language is: (c) a delimit device for delimiting selectable regions adjacent the periphery of the working region, each of the selectable regions selectable by the user and having an external boundary wherein the external boundary includes the side of the selectable region furthest from the 30 the working region and having ... an activation area extending beyond the external boundary of the selectable region and **beyond the display screen...** (Answer, p.12, lines 4-7, emphasis added.)

Baker's external areas are necessarily on, **not beyond**, the display screen, as explained in issue 51 in the Amended Appeal Brief, p.72. The Examiner has not contested this explanation of Baker's disclosure and has not provided a factual basis for the Examiner's contrary conclusion.

5 33. With respect to the second embodiment of claim 114, whether Ito teaches either a confiner or an activation area beyond the display screen.

The teaching of Ito concerning (a) a confiner, and (b) an activation area extending beyond the external boundary of the selectable region and beyond the display screen, are each discussed separately in connection with claim 114 above.

10 34. With respect to the second embodiment of claim 114, whether Baker teaches **selecting** by moving the cursor within a selectable region.

With respect to the second embodiment of claim 114 (selectable regions are outside the display screen) Appellant urges that none of the applied art teaches selection responsive to an intersection of the movement related signal and a selectable region **outside** the display screen. The Examiner admits that "Ito does not explicitly disclose moving a cursor intersecting with a selectable region for selecting the selectable region" (Final, p.3, lines 2-3). Lazzaro is not combinable with Ito (Amended Appeal Brief, issue 3, p.48), and even assuming *arguendo* that these references may be combined, Lazzaro's teaching regarding selection is limited to selectable regions **on** the display (Amended Appeal Brief, issue 52, p.72). Therefore, the rejection with respect to the second embodiment of claim 114 relies on Baker's teaching regarding selection. The Examiner stated in the Final that "Baker teaches to use [sic] a cursor control for **selecting** a selectable region **by moving** the cursor within the selectable region." (Final, p.3, lines 2-3, emphasis added). Appellant disagrees because Baker discloses **displaying**, not selecting, a virtual menu item responsive to the cursor crossing a peripheral region of the window, as described in Amended Appeal Brief, issue 46, p.68.

25 35. With respect to claim 114, whether Ito, as combined with Baker, and Golding are combinable. The Answer does not address issue 53 in the Amended Appeal Brief, p.73.

30 36. With respect to claim 115, whether Ito and Lazzaro are combinable. This issue has already been discussed in the Issues Concerning Many Claims section above.

37. With respect to claim 115, whether Baker teaches **selecting** by moving the cursor within a



selectable region.

Appellant inadvertently erred in the heading of issue 46, Amended Appeal Brief, p.70. The issue applies to claim 115, not claim 114.

5 38. With respect to the second embodiment of claim 115, whether the proposed combination of Ito and Lazzaro teaches selection by dwell of a selectable region **outside** the display screen.

Appellant inadvertently erred in the heading of issue 52, Amended Appeal Brief, p.71. The issue applies to claim 115, not claim 114.

10 39. With respect to each of claims 116, 117, 202, 118, 119, 120, 121, 122, 123, 124, 126, 127, 128, 129, 130, 131, 169, 200, and 201, whether the Examiner has made a *prima facie* case for obviousness.

The Answer does not address issues 54-72 in the Amended Appeal Brief, p.73-76.

15 Independent claim 52

40. With respect to claim 52, whether Ito and Lazzaro are combinable.

This issue has already been discussed in the Issues Concerning Many Claims section above.

Independent claim 53

20 41. With respect to claim 53, whether the proposed combination teaches selection responsive to the **durations of a plurality of successive periods** of intersection.

Lazzaro does not disclose or suggest selection responsive to either (a) **two or more** periods of intersection, or (b) **successive** periods of intersection. Lazzaro discloses selection responsive to the duration of a **single** period of intersection. Concerning selection, Lazzaro states "The user can 'strike' a key in one of two ways. He can focus on the desired key for a user-definable timer period (which causes the key to be highlighted), or he can click on an adapted switch when he chooses the desired key." (Lazzaro, p.62, lines 13-15).

25 The claim addresses a problem in systems with selection responsive to a single period of intersection, described in the instant Specification at p.14, lines 9-18. When using such systems, users with tremors have difficulty maintaining the location indicated by a pointer on a selectable region or a key image of an on-screen keyboard for the selection threshold. If selection is responsive to a **single** period of intersection, the user must dwell **continuously** on the key image for the selection threshold to select it. If a tremor pulls the location indicated by the pointer off the key image, the user

must start from scratch. The user gets no benefit from previous dwell time on the key image. The user may require several attempts to select the key image. During each of these, other coexisting movement disorders may cause the user to select an unintended key image.

Selection responsive to a **plurality of successive periods** of intersection facilitates selection by a user with tremor by crediting the user with accumulated dwell time on a selectable region. If a tremor pulls the location indicated by the pointer off a selectable region having accumulated dwell time, the user need not dwell on the region for the entire selection threshold to select it.

42. With respect to claim 53, whether Ito teaches a circumscribing plurality of selectable regions **on the display**.

This issue has already been discussed in connection with claim 20 above.

43. With respect to claim 53, whether the Final provides a motivation to make the proposed modification of Ito.

The Answer does not address issue 75 in the Amended Appeal Brief, p.77.

Independent claim 65 and its dependent claims

44. With respect to claim 65, whether any of the new results show the claimed invention as a whole to be nonobvious.

The Answer does not address issues 76-80 in the Amended Appeal Brief, p.77-78.

45. With respect to claim 65, whether any of the applied art suggests the claimed invention as a solution to the problem of computer access for individuals with cerebral palsy of the severity shown on the Video Tape.

This issue has already been discussed in connection with claim 19 above.

46. With respect to claim 66, whether Ito teaches selectable regions **adjacent** a confiner.

The issue has already been discussed in connection with claims 19 and 114 above.

Independent claim 67 and its dependent claims

47. With respect to claim 67, whether Anderson teaches a user activatable switch having a **plurality of positions**.

The Examiner stated that the relationship of "one switch to many menu options" is not recited

in the rejected claim (Answer, p.15, lines 6-7). This is incorrect.

Independent claim 67 includes one switch, not a plurality of switches. The claim includes “a user activatable switch”. All following references in independent claim 67 and its dependent claims are to **the** switch, i.e. the definite article “the” is used indicating that the antecedent is “a user  
5 activatable switch”.

The **one** switch has a plurality of **positions**. There are a plurality of menu options. Each menu option is associated **respectively** with a position of the user activatable switch, i.e. there are a plurality of **positions** of the switch. The switch is positionable “with respect to the location of each menu option for selection thereof”, i.e. each position of the switch corresponds to the location of one  
10 of the menu options.

48. With respect to claim 67, whether the claim is patentable.

The Answer does not address issues 83-84 and 87-88 in the Amended Appeal Brief, p.78-80

15 49. With respect to claim 67, whether any of the new results show the claimed invention as a whole to be nonobvious.

The Answer does not address issues 85-86 in the Amended Appeal Brief, p.80.

20 50. With respect to claim 67, whether any of the applied art suggests the claimed invention as a solution to the problem of computer access for individuals with cerebral palsy of the severity shown on the Video Tape.

This issue has already been discussed in connection with claim 19 above.

25 51. With respect to claim 69, whether Ito and Atkinson are combinable.

This issue has already been addressed in the section entitled “Issue Concerning Many Claims” above.

#### Independent claim 85 and its dependent claims

30 52. With respect to claim 85, whether the combination of Ito and Lazzaro teaches the claimed apparatus.

The Answer now includes a new ground of rejection for claim 85, specifically Atkinson. In the Final, the stated grounds of rejection for this claim did not include Atkinson (Final, p.5, lines 12-13).

Inclusion of a new ground of rejection in the Examiner's Answer is prohibited by 37 C.F.R.

1.193(a)(2).

53. Whether Ito and Atkinson are combinable.

This issue has already been addressed in the section entitled “Issue Concerning Many Claims”  
above.

54. With respect to claim 85, whether the Final evidences improper hindsight reconstruction of references.

This issue has already been discussed in the section entitled “Issue Concerning Many Claims”  
above.

55. With respect to each of claims 86, 87, 88, 101, 102, 103, and 105, whether the Examiner has made a *prima facie* case for obviousness.

The Answer does not address issues 92-103 in the Amended Appeal Brief, p.81-83.

Independent claim 94

56. With respect to claim 94, whether the proposed combination teaches an **invisible** selectable region outside the display screen.

The Examiner states that “the features upon which appellant relies (i.e., the claimed invisible selectable region is never visible, i.e. it does not become visible when involved) are not recited in the rejected claim(s).” (Answer, p.16, lines 16-19). Appellant urges that the plain meaning of the language of the claim incorporates continued invisibility.

Claim 94 includes “a delimit device completely delimiting **an invisible selectable region** outside the display screen”. All subsequent references in the claim to this invisible selectable region use the definite article “the”. Thus all subsequent references incorporate the named quality of the selectable region, i.e. invisibility. There is no language in the claim indicating that the quality of invisibility changes.

57. With respect to claim 94, whether the claim is patentable.

The Answer does not address issues 106-108 in the Amended Appeal Brief, p.84.

Independent claim 106 and its dependent claims

The Examiner appears to agree with Appellant that independent claim 106 is allowable. While

both independent claim 106 and its dependent claim 113 stand rejected under 35 U.S.C. §103 (Answer, p.3, lines 9-10; p.7, lines 12-14), a limitation in claim 106 was the discussed in a telephone interview between the Examiner and Appellant on 30 November 1999. In that interview, the Examiner stated that a limitation close to the language of claim 106 would be allowed. The allowable limitation is “each of the first selectable regions associated respectively with one of the menu options and each of the first selectable regions including a first subregion adjacent and outside the display area and a second subregion inside and on the display area” (Interview Summary, Paper No. 57). The Response to Argument section of the Answer omits any discussion of claims 106 and 113.

58. With respect to each of claims 106 and 113, whether the claim is patentable.  
The Answer does not address issues 109-117 in the Amended Appeal Brief, p.84-85.

Independent claim 134 and its dependent claims

59. With respect to claim 134, whether Choi is **pertinent prior art**.

The Answer does not address the issue of the pertinence of Choi, issue 118 in the Amended Appeal Brief, p.86.

The Examiner has muddled the issue of the pertinence of art with the issue of a suggestion to combine that art. The quoted text from *Ex parte Obiaya*, 227 USPQ 58, 60 (BPAI, 1985) in the Response to Argument section of the Answer bears not on the issue of pertinence, but on the issue of combinability of art already deemed pertinent.

60. With respect to claim 134, whether Choi teaches a **dwelt time indicator**.

The Examiner stated that “Choi is used to teach a **dwelt time indicator feature**” (Answer, p.17, line 3, emphasis added). Choi simply does not teach this feature. Dwell requires “one or more periods of **intersection of locations indicated by a movement related signal**, a body member or a cursor (including any part of the cursor) and a **selectable region**.” (Specification, p.42, lines 1-4). Choi lacks the requisite elements for dwell: (a) an intersection, (b) a location indicated by a movement related signal, and (c) a selectable region.

61. With respect to claim 134, whether the claim is patentable.

The Answer does not address issues 120-121 in the Amended Appeal Brief, p.87-88.

62. With respect to each of claims 135-146, whether the Examiner has made a *prima facie* case for

obviousness.

The Answer does not address issues 122-132 in the Amended Appeal Brief, p.88-89.

Independent claim 155 and its dependent claims

5 63. With respect to claim 155, whether the proposed combination teaches selection responsive to the durations of a **plurality of successive periods** of intersection.

This issue is discussed in connection with claim 53 above.

The Answer does not address issue 133 in the Amended Appeal Brief, p.90.

10 64. With respect to claim 155, whether Ito teaches away from selectable regions **adjacent a confiner**.

This issue has already been discussed in connection with claim 19 above.

15 65. With respect to claim 115, whether Atkinson teaches selectable regions **adjacent a confiner**.

This issue has already been discussed in connection with claim 19 above.

66. With respect to claim 155, whether any of the new results show the claimed invention as a whole to be nonobvious.

The Answer does not address issues 135-139 in the Amended Appeal Brief, p.90-91.

20 67. With respect to claim 156, whether any of the applied art suggests the claimed invention as a solution to the problem of computer access for individuals with cerebral palsy of the severity shown on the Video Tape.

This issue has already been discussed in connection with claim 19 above.

25 68. With respect to claim 155, whether the Final evidences improper hindsight reconstruction of references.

This issue has already been discussed in the section entitled "Issue Concerning Many Claims" above.

30 69. With respect to claim 155, whether Ito's Fig. 5 teaches an **activation area** beyond the display screen.

This issue has already been discussed in connection with claim 114 above.

70. With respect to claim 155, whether the Examiner provided a motivation to combine Ito and Atkinson.

This issue has already been discussed in connection with claim 114 above.

5 71. With respect to claim 155, whether Ito teaches away from a confiner.

This issue has already been discussed in connection with claim 114 above.

72. With respect to the first embodiment of claim 155, whether he proposed combination teaches circumscribing selectable regions **on** the display screen.

10 This issue has already been discussed in connection with claim 20 above.

73. With respect to the first embodiment of claim 155, whether the claim is patentable.

The Answer does not address issues 142-144 in the Amended Appeal Brief, p.91.

15 74. With respect to the first embodiment of claim 155, whether the proposed combination teaches selectable regions **partially on and partially outside** the display.

This issue has already been discussed in connection with claim 106 above.

75. With respect to the second embodiment of claim 155, whether the claim is patentable.

20 The Answer does not address issues 147-148 in the Amended Appeal Brief, p.92.

76. With respect to the second embodiment of claim 155, whether Baker teaches a selectable region including a subregion **outside** the display screen.

This issue has already been discussed in connection with claim 114 above.

25 77. With respect to the second embodiment of claim 155, whether Ito teaches either a confiner or an activation area beyond the display screen.

The teaching of Ito concerning (a) a confiner, and (b) an activation area extending beyond the external boundary of the selectable region and beyond the display screen, are each discussed  
30 separately in connection with claim 114 above.

78. With respect to claim 155, whether Ito, as combined with Baker, and Golding are combinable.

The Answer does not address issue 149 in the Amended Appeal Brief, p.92.

79. With respect to each of claims 156 and 157, whether the Examiner has made a *prima facie* case for obviousness.

The Answer does not address issues 150-151 in the Amended Appeal Brief, p.92.

Independent claim 159

80. With respect to claim 159, whether Anderson teaches a user activatable switch having a **plurality of positions**.

This issue has already been discussed in connection with claim 67 above.

The Answer does not address issue 152 in the Amended Appeal Brief, p.92.

81. With respect to claim 159, whether the claim is patentable.

The Response to Argument section of the Examiner's Answer omits any discussion of claim 159, and in particular, the Answer does not address issues 153-158 in the Amended Appeal Brief, p.93.

Independent claim 160

82. With respect to claim 160, whether the claim is patentable.

The Answer does not address issues 159-162 and 164-165 in the Amended Appeal Brief, p.93-94.

83. With respect to claim 160, whether Anderson teaches a user activatable switch having a **plurality of positions**.

This issue has already been discussed in connection with claim 67 above.

Independent claim 161

84. With respect to claim 161, whether Anderson teaches a user activatable switch having a **plurality of positions**.

This issue has already been discussed in connection with claim 67 above.

85. With respect to claim 161, whether the claim is patentable.

The Answer does not address issues 167-172 in the Amended Appeal Brief, p.95.

Independent claim 162



86. With respect to claim 162, whether Anderson teaches a user activatable switch having a **plurality of positions**.

This issue has already been discussed in connection with claim 67 above.

87. With respect to claim 162, whether the claim is patentable.

The Answer does not address issues 174-179 in the Amended Appeal Brief, p.96.

Independent claim 78

88. With respect to claim 78, whether the proposed combination teaches an **invisible** selectable subregion outside the display area.

This issue has already been discussed in connection with claim 94 above.

89. With respect to claim 78, whether the proposed combination teaches circumscribing selectable regions **on** the display.

This issue has already been discussed in connection with claim 20 above.

90. With respect to claim 78, whether the claim is patentable.

The Answer does not address issues 182 and 184-188 in the Amended Appeal Brief, p.97.

91. With respect to claim 78, whether the proposed combination teaches selectable regions **partially on and partially outside** the display.

This issue has already been discussed in connection with claim 106 above.

Independent claim 79

92. With respect to claim 79, whether Ito teaches away from selectable regions **adjacent a confiner**.

This issue has already been discussed in connection with claim 19 above.

93. With respect to claim 79, whether the proposed combination teaches circumscribing selectable regions **on** the display.

This issue has already been discussed in connection with claim 20 above.

94. With respect to claim 79, whether the claim is patentable.

The Answer does not address issues 191-197 in the Amended Appeal Brief, p.98-99.

Independent claim 80

95. With respect to claim 80, whether Ito teaches away from selectable regions **adjacent a confiner**.

This issue has already been discussed in connection with claim 19 above.

96. With respect to claim 80, whether he proposed combination teaches circumscribing selectable regions **on** the display.

This issue has already been discussed in connection with claim 20 above.

97. With respect to claim 80, whether the claim is patentable.

The Answer does not address issues 200-209 in the Amended Appeal Brief, p.99-100.

Independent claim 163

98. With respect to claim 163, whether the new result of **accommodating overshoot** is obvious.

The Answer does not address issue 210 in the Amended Appeal Brief, p.100.

99. With respect to claim 163, whether any of the new results show the claimed invention as a whole to be nonobvious.

The Answer does not address issues 211-214 in the Amended Appeal Brief, p.100-101.

100. With respect to claim 163, whether any of the applied art suggests the claimed invention as a solution to the problem of computer access for individuals with cerebral palsy of the severity shown on the Video Tape.

This issue has already been discussed in connection with claim 19 above.

101. With respect to claim 163, whether Ito and Baker are combinable.

This issue has already been discussed in connection with claim 114 above.

102. With respect to claim 163, whether the Final evidences improper hindsight reconstruction of references.

This issue has already been discussed in the section entitled "Issue Concerning Many Claims"

above.

103. With respect to claim 163, whether Ito, as combined with Baker, and Golding are combinable.  
The Answer does not address issue 217 in the Amended Appeal Brief, p.101.

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Independent claim 170 and its dependent claims

104. With respect to claim 172, whether the proposed combination teaches selection responsive to the durations of a **plurality of successive periods** of intersection.

This issue has already been discussed in connection with claim 53 above.

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105. With respect to claim 173, whether the proposed combination teaches a **partially invisible** selectable region outside the display screen.

This issue has already been discussed in connection with claim 94 above.

15

106. With respect to claim 174, whether the proposed combination teaches at most one of the selectable regions is adjacent the display screen.

The Answer does not address issue 221 in the Amended Appeal Brief, p.102.

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107. With respect to claim 177, whether the proposed combination teaches selection responsive to a **ratio** between durations.

The Answer does not address issue 222 in the Amended Appeal Brief, p.102.

108. With respect to claim 178, whether Ito teaches a plurality of selectable regions **on** the display.

This issue has already been discussed in connection with claim 20 above.

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109. With respect to claim 178, whether the proposed combination teaches selectable regions **partially on and partially outside** the display.

This issue has already been discussed in connection with claim 106 above.

The Answer does not address issue 224 in the Amended Appeal Brief, p.102.

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110. With respect to claim 179, whether any of the new results show the claimed invention as a whole to be nonobvious.

The Answer does not address issues 225-229 in the Amended Appeal Brief, p.102-103.

111. With respect to claim 179, whether any of the applied art suggests the claimed invention as a solution to the problem of computer access for individuals with cerebral palsy of the severity shown on the Video Tape.

This issue has already been discussed in connection with claim 19 above.

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112. With respect to claim 180, whether the proposed combination teaches selectable regions on the display.

This issue has already been discussed in connection with claim 20 above.

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113. With respect to claim 180, whether the Final provides a motivation to make the proposed modification of Ito.

This issue has already been discussed in connection with claim 20.

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114. With respect to claim 181, whether the proposed combination teaches **circumscribing** selectable regions on the display.

This issue has already been discussed in connection with claim 20 above.

115. With respect to claim 182, whether Choi is **pertinent prior art**.

This issue has already been discussed in connection with claim 134 above.

20

116. With respect to claim 182, whether Choi teaches a **dwell time indicator**.

This issue has already been discussed in connection with claim 134 above.

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117. With respect to claim 182, whether the proposed combination teaches a **remaining** dwell time indicator.

The Answer does not address issue 235 in the Amended Appeal Brief, p.104.

118. With respect to claim 183, whether the proposed combination teaches a **tactile indicator**.

The Answer does not address issue 236 in the Amended Appeal Brief, p.104.

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119. With respect to claim 184, whether the proposed combination teaches indicating on the screen the **location** of one of the successive locations located **outside** the screen.

The Answer does not address issue 237 in the Amended Appeal Brief, p.104.

120. With respect to claim 185, whether the proposed combination teaches **indicating the distance** to one of the successive locations located outside the display screen.

The Answer does not address issue 238 in the Amended Appeal Brief, p.104.

5 121. With respect to claim 186, whether the proposed combination teaches selection responsive to detected **user fatigue**.

The Answer does not address issue 239 in the Amended Appeal Brief, p.104.

10 122. With respect to claim 187, whether the proposed combination teaches a **remaining dwell time** indicator.

The Answer does not address issue 240 in the Amended Appeal Brief, p.104.

123. With respect to claim 188, whether the proposed combination teaches selectable regions **partially on and partially outside** the display.

15 This issue has already been discussed in connection with claim 106 above.

The Answer does not address issue 241 in the Amended Appeal Brief, p.104.

124. With respect to claim 189, whether the proposed combination teaches **dynamic** menus on the display.

20 The Answer does not address issue 242 in the Amended Appeal Brief, p.104.

125. With respect to claim 190, whether the proposed combination teaches an **invisible** selectable region outside the display screen.

25 This issue has already been discussed in connection with claim 94 above.

126. With respect to claim 191, whether Atkinson teaches a menu and its submenu associated with the **same selectable regions**.

The Answer does not address issue 244 in the Amended Appeal Brief, p.105.

30 127. With respect to claim 191, whether Atkinson can be modified so its menus and submenu are associated with the same selectable regions.

The Answer does not address issue 245 in the Amended Appeal Brief, p.105.

128. With respect to claim 192, whether Ito, as combined with Baker, and Golding are combinable. The Answer does not address issue 246 in the Amended Appeal Brief, p.105.

129. With respect to claim 193, whether the proposed combination teaches an **invisible** selectable region outside the display screen.

This issue has already been discussed in connection with claim 94 above.

130. With respect to claim 195, whether the proposed combination teaches selectable regions **partially on and partially outside** the display.

This issue has already been discussed in connection with claim 106 above.

131. With respect to claim 196, whether the proposed combination teaches the claimed device controller.

The Answer does not address issue 249 in the Amended Appeal Brief, p.106.

Independent claim 1 and its dependent claims

132. With respect to claim 204, whether the proposed combination teaches a movement related signal receiving means that is **not flush against the display screen**.

The Answer does not address issue 250 in the Amended Appeal Brief, p.106.

133. With respect to claim 205, whether the proposed combination teaches a selectable region having a size of **at least 5% of the user's range of motion**.

The Answer does not address issue 251 in the Amended Appeal Brief, p.106.

Independent claim 54 and its dependent claims

134. With respect to claim 54, whether the proposed combination teaches selection responsive to **only** an intersection of a cursor and a selectable region.

Selection by the selection means of claim 54 is a two step process as indicated by the word "thereafter" in the claim. The first step limits selection to the second plurality of selectable regions, each being associated respectively with a menu option. Selection in the first step is responsive "**only** to an intersection of the cursor and **a first one of the first plurality of regions**". The second step selects from among the menu options associated respectively with the second plurality of selectable regions selected in the first step.

None of the applied art teaches selection responsive to **only** an intersection of a cursor and a selectable region. This matter is explored in the next two issues.

5 135. With respect to claim 54, whether Atkinson teaches selection responsive to **only** an intersection of a cursor and a selectable region.

It appears that the Examiner agrees with Appellant that Atkinson does not teach selection responsive to **only** an intersection. (Answer, p.19, lines 3-4).

10 136. With respect to claim 54, whether Baker teaches **selecting** by moving the cursor within a selectable region.

The issue of Baker's teaching concerning selection responsive only to an intersection is addressed in issue 46, Amended Appeal Brief, p.70, and in connection with claim 114 above.

15 137. With respect to claim 54, whether he proposed combination teaches circumscribing regions **on** the display.

This issue has already been discussed in connection with claim 19 above.

20 138. With respect to claim 55, whether the proposed combination teaches **displaying circumscribing regions** responsive to a switch operation.

None of the applied art discloses or suggests **displaying circumscribing regions** responsive to a switch operation signal.

The Answer does not address issue 256 in the Amended Appeal Brief, p.108.

25 139. With respect to claim 56, whether the proposed combination teaches a hierarchy of circumscribing selectable regions.

None of the applied art discloses or suggests a hierarchy of circumscribing selectable regions.

The Answer does not address this limitation or combination.

Independent claim 147 and its dependent claims

30 140. With respect to claim 147, whether Ito teaches away from selectable regions **adjacent a confiner**.

This issue has already been discussed in connection with claim 19 above.

141. With respect to claim 147, whether any of the new results show the claimed invention as a whole to be nonobvious.

The Answer does not address issues 259-260 in the Amended Appeal Brief, p.108.

5 142. With respect to claim 147, whether any of the applied art suggests the claimed invention as a solution to the problem of computer access for individuals with cerebral palsy of the severity shown on the Video Tape.

This issue has already been discussed in connection with claim 19 above.

10 143. With respect to claim 147, whether the Final evidences improper hindsight reconstruction of references.

This issue has already been discussed in the section entitled "Issue Concerning Many Claims" above.

15 144. With respect to claim 147, whether Ito teaches away from a confiner.

This issue has already been discussed in connection with claim 114 above.

145. With respect to claim 147, whether the Examiner provided a motivation to combine Ito and Atkinson.

20 This issue has already been discussed in connection with claim 114 above.

146. With respect to claim 147, whether Ito's Fig. 5 teaches an **activation area** beyond the display screen.

This issue has already been discussed in connection with claim 114 above.

25 147. With respect to claim 147, whether Atkinson teaches selectable regions **adjacent a confiner**.

This issue has already been discussed in connection with claim 19 above.

30 148. With respect to the first embodiment of claim 147, whether he proposed combination teaches circumscribing selectable regions **on** the display area.

This issue has already been discussed in connection with claim 20 above.

149. With respect to the first embodiment of claim 147, whether the Final provides a motivation to



make the proposed modification of Ito.

The Answer does not address issue 263 in the Amended Appeal Brief, p.109.

- 5 150. With respect to the first embodiment of claim 147, whether Ito teaches selectable regions **adjacent** a confiner and **on** the display.

The Answer does not address issue 264 in the Amended Appeal Brief, p.109.

151. With respect to the first embodiment of claim 147, whether Ito and Baker are combinable.

The Answer does not address issue 265 in the Amended Appeal Brief, p.109.

- 10 152. With respect to the first embodiment of claim 147, whether Ito teaches circumscribing selectable regions **on** the display.

This issue has already been discussed in connection with claim 20 above.

- 15 153. With respect to the first embodiment of claim 147, whether the proposed combination teaches selectable regions **partially on and partially outside** the display.

This issue has already been discussed in connection with claim 106 above.

- 20 154. With respect to the second embodiment of claim 147, whether Ito teaches simultaneously displayed **menu options on** the display area.

The Answer does not address issue 268 in the Amended Appeal Brief, p.110.

- 25 155. With respect to the second embodiment of claim 147, whether Baker teaches away from **simultaneously** displayed menu options on the display area.

The Answer does not address issue 269 in the Amended Appeal Brief, p.110.

156. With respect to the second embodiment of claim 114, whether Baker teaches a selectable region including a subregion **outside** the display screen.

This issue has already been discussed in connection with claim 114 above.

- 30 157. With respect to the second embodiment of claim 147, whether Ito teaches either a confiner or an activation area beyond the display screen.

The teaching of Ito concerning (a) a confiner, and (b) an activation area extending beyond the

external boundary of the selectable region and beyond the display screen, are each discussed separately in connection with claim 114 above.

5 158. With respect to claim 147, whether Ito, as combined with Baker, and Golding are combinable.  
The Answer does not address issue 270 in the Amended Appeal Brief, p.110.

159. With respect to claim 148, whether the proposed combination teaches the claimed **relationship between a menu option and a submenu option**.  
The Answer does not address issue 271 in the Amended Appeal Brief, p.110.

10 160. With respect to claim 149, whether the proposed combination teaches any of the enumerated classes.  
This issue has already been discussed issue 24 of the Amended Appeal Brief, p.61 and in connection with claim 34 above.

15 161. With respect to each of claims 150, 151, 152, 153, 154,167, 168, and 203 whether the Examiner has made a *prima facie* case for obviousness.  
The Answer does not address issues 273-280 in the Amended Appeal Brief, p.110-111.

20 Independent claim 158

162. With respect to claim 158, whether Ito teaches away from selectable regions **adjacent a confiner**.  
This issue has already been discussed in connection with claim 114 above.

25 163. With respect to claim 158, whether any of the new results show the claimed invention as a whole to be nonobvious.  
The Answer does not address issues 282-283 in the Amended Appeal Brief, p.112.

30 164. With respect to claim 158, whether any of the applied art suggests the claimed invention as a solution to the problem of computer access for individuals with cerebral palsy of the severity shown on the Video Tape.  
This issue has already been discussed in connection with claim 19 above.

165. With respect to the second embodiment of claim 158, whether Baker teaches **selecting** by moving the cursor within a selectable region.

The Answer does not address issues 284 in the Amended Appeal Brief, p.112.

5 166. With respect to claim 158, whether Ito and Baker are combinable.

The Answer does not address issues 285 in the Amended Appeal Brief, p.112.

167. With respect to claim 158, whether the Final evidences improper hindsight reconstruction of references.

10 This issue has already been discussed in the section entitled "Issues Concerning Many Claims" above.

168. With respect to claim 158, whether Ito teaches away from a confiner.

This issue has already been discussed in connection with claim 114 above.

15 169. With respect to claim 158, whether the Examiner provided a motivation to combine Ito and Atkinson.

This issue has already been discussed in connection with claim 114 above.

20 170. With respect to claim 158, whether Ito's Fig. 5 teaches an **activation area** beyond the display screen.

This issue has already been discussed in connection with claim 114 above.

171. With respect to claim 158, whether Atkinson teaches selectable regions **adjacent a confiner**.

25 This issue has already been discussed in connection with claim 19 above.

172. With respect to the first embodiment of claim 158, whether he proposed combination teaches circumscribing selectable regions **on** the display screen.

This issue has already been discussed in connection with claim 20 above.

30 173. With respect to the first embodiment of claim 158, whether the Final provides a motivation to make the proposed modification of Ito.

The Answer does not address issue 288 in the Amended Appeal Brief, p.112.

174. With respect to the first embodiment of claim 158, whether Ito teaches selectable regions **adjacent a confiner and on the display.**

The Answer does not address issue 289 in the Amended Appeal Brief, p.113.

5 175. With respect to the first embodiment of claim 158, whether the proposed combination teaches selectable regions **partially on and partially outside** the display.

This issue has already been discussed in connection with claim 106 above.

10 176. With respect to the second embodiment of claim 158, whether Baker teaches a selectable region including a subregion **outside** the display screen.

The Answer does not address issue 291 in the Amended Appeal Brief, p.113.

177. With respect to the second embodiment of claim 158, whether Ito teaches either a confiner or an activation area beyond the display screen.

15 The teaching of Ito concerning (a) a confiner, and (b) an activation area extending beyond the external boundary of the selectable region and beyond the display screen, are each discussed separately in connection with claim 114 above.

Independent claim 165

20 178. With respect to claim 165, whether Ito teaches away from selectable regions **adjacent a confiner.**

This issue has already been discussed in connection with claim 19 above.

25 179. With respect to claim 165, whether any of the new results show the claimed invention as a whole to be nonobvious.

The Answer does not address issues 293-294 in the Amended Appeal Brief, p.113.

30 180. With respect to claim 165, whether any of the applied art suggests the claimed invention as a solution to the problem of computer access for individuals with cerebral palsy of the severity shown on the Video Tape.

This issue has already been discussed in connection with claim 19 above.

181. With respect to claim 165, whether Baker teaches away from **simultaneously** displayed menu

options .

The Answer does not address issue 295 in the Amended Appeal Brief, p.113.

182. With respect to claim 165, whether Ito and Baker are combinable.

The Answer does not address issues 296 in the Amended Appeal Brief, p.114.

183. With respect to claim 165, whether the Final evidences improper hindsight reconstruction of references.

This issue has already been discussed in the section entitled Issues Concerning Many Claims above.

184. With respect to claim 165, whether Baker teaches **selecting** by moving the cursor within a selectable region.

The Answer does not address issue 298 in the Amended Appeal Brief, p.114.

185. With respect to claim 165, whether Ito teaches away from a confiner.

This issue has already been discussed in connection with claim 114 above.

186. With respect to claim 165, whether the Examiner provided a motivation to combine Ito and Atkinson.

This issue has already been discussed in connection with claim 114 above.

187. With respect to claim 165, whether Ito's Fig. 5 teaches an **activation area** beyond the display screen.

This issue has already been discussed in connection with claim 114 above.

188. With respect to claim 165, whether Atkinson teaches selectable regions **adjacent a confiner**.

This issue has already been discussed in connection with claim 19 above.

189. With respect to the first embodiment of claim 165, whether he proposed combination teaches circumscribing selectable regions **on** the display screen.

This issue has already been discussed in connection with claim 20 above.

190. With respect to the first embodiment of claim 165, whether the Final provides a motivation to make the proposed modification of Ito.

The Answer does not address issue 300 in the Amended Appeal Brief, p.114.

5 191. With respect to the first embodiment of claim 165, whether Ito teaches selectable regions **adjacent** a confiner and **on** the display.

The Answer does not address issue 301 in the Amended Appeal Brief, p.114.

10 192. With respect to the first embodiment of claim 165, whether the proposed combination teaches selectable regions **partially on and partially outside** the display.

This issue has already been discussed in connection with claim 106 above.

193. With respect to the second embodiment of claim 165, whether Baker teaches a selectable region including a subregion **outside** the display screen.

15 The Answer does not address issue 303 in the Amended Appeal Brief.

194. With respect to the second embodiment of claim 165, whether Ito teaches either a confiner or an activation area beyond the display screen.

20 The teaching of Ito concerning (a) a confiner, and (b) an activation area extending beyond the external boundary of the selectable region and beyond the display screen, are each discussed separately in connection with claim 114 above.

195. With respect to claim 165, whether Ito, as combined with Baker, and Golding are combinable.

The Answer does not address issue 304 in the Amended Appeal Brief, p.115.

25 Independent claim 198

196. With respect to claim 198, whether Ito teaches selectable regions **on** the display.

This issue has already been discussed in connection with claim 20 above.

30 197. With respect to claim 198, whether Baker teaches away from **simultaneously** displayed menu options .

The Answer does not address issue 306 in the Amended Appeal Brief, p.115.

198. With respect to claim 198, whether Ito, as combined with Baker, and Golding are combinable.  
The Answer does not address issue 307 in the Amended Appeal Brief, p.115.

Independent claim 39 and its dependent claims

199. With respect to claim 39, whether the Ito, Lazzaro, or Baker teaches **indicators for indicating intersection of selectable regions outside the display area**.

The Answer does not address issue 308 in the Amended Appeal Brief, p.115.

200. With respect to claim 39, whether Ito and Baker are combinable.

The Answer does not address issue 309 in the Amended Appeal Brief, p.116.

201. With respect to claim 39, whether the Final evidences improper hindsight reconstruction of references.

This issue has already been discussed in the section entitled Issues Concerning Many Claims above.

202. With respect to each of claims 44, 47, 48, and 49, whether the Examiner has made a *prima facie* case for obviousness.

The Answer does not address issues 311-315 in the Amended Appeal Brief, p.116-117.

Independent claim 61 and its dependent claims

The grounds of rejection for claim 61 and its dependent claims provided in the Response to Argument section of the Answer are new; they were not presented in any prior office action. Furthermore, the Examiner did not previously apply Anderson in rejecting claim 61.

203. With respect to claim 61, whether the proposed combination teaches a **clipper**.

The claimed menu option selector includes "**a clipper** for generating, in response to the location indicated by the body member of the operator indicating a location outside the display area, a **clipped location** indicative of a location on the display area".

None of the applied art teaches either a clipper or a clipped location. In the Answer, the Examiner concludes that "Fig. 8 of Anderson teaches a clipper (connecting means)" (Answer, p.20, line 1), but fails to provide a factual basis for that conclusion. The Examiner fails to cite any disclosure in Anderson teaching the claimed structure. The term "connecting means" or "means for

connecting” referred to in the Answer appears only in claim 3 of the Anderson reference. Anderson is directed to a telephone station set. The station set includes a telephone handset containing transducers for audio input/output and a voice signal port coupled to PBX or Central Office for sending and receiving voice signals. Anderson's connecting means constitutes two pairs of switchhook contacts (HS1 and HS2 shown in Anderson Fig. 4) “for user-controllably connecting said transducers to said voice signal port.”

Anderson's connecting means do not disclose or suggest the claimed clipper.

204. With respect to claim 61, whether the proposed combination teaches **selection responsive to a clipped location**.

None of the applied art teaches “a selector for selecting, in response to a selection event, the menu option associated with the selectable region **intersected by the clipped location**.” Despite the Examiner's conclusion, referenced immediately above, the Examiner fails to cite any disclosure in Anderson teaching an intersection of a selectable region and a **clipped location**.

205. With respect to claim 61, whether he proposed combination teaches circumscribing selectable regions **on** the display.

This issue has already been discussed in connection with claim 20 above.

206. With respect to claim 61, whether the Final provides a motivation to make the proposed modification of Ito.

The Answer does not address issues 319 in the Amended Appeal Brief, p.118.

207. With respect to claim 62, whether the new result of **accommodating overshoot** shows the claimed invention as a whole to be nonobvious.

The Answer does not address issue 320 in the Amended Appeal Brief, p.1158

208. With respect to claim 62, whether any of the applied art suggests the claimed invention as a solution to the problem of computer access for individuals with cerebral palsy of the severity shown on the Video Tape.

This issue has already been discussed in connection with claim 19 above.

Independent claim 63 and its dependent claims



209. With respect to claim 63, whether he proposed combination teaches circumscribing selectable regions **on** the display.

This issue has already been discussed in connection with claim 20 above.

5 210. With respect to claim 63, whether the Final provides a motivation to make the proposed modification of Ito.

The Answer does not address issue 322 in the Amended Appeal Brief, p.118.

211. With respect to claim 63, whether Ito and Lazzaro are combinable.

10 This issue has already been discussed in the section entitled "Issues Concerning Many Claims" above.

Independent claim 71

15 212. With respect to claim 71, whether he proposed combination teaches circumscribing selectable regions **on** the display.

This issue has already been discussed in connection with claim 20 above.

213. With respect to claim 71, whether the Final provides a motivation to make the proposed modification of Ito.

20 The Answer does not address issue 325 in the Amended Appeal Brief, p.119.

214. With respect to claim 71, whether Ito teaches selectable regions **adjacent** a confiner.

This issue has already been discussed in connection with claim 19 above.

25 215. With respect to claim 71, whether Ito teaches selectable regions **adjacent** a confiner and **on** the display.

The Answer does not address issue 327 in the Amended Appeal Brief, p.119.

30 216. With respect to claim 71, whether any of the new results show the claimed invention as a whole to be nonobvious.

The Answer does not address issues 328-332 in the Amended Appeal Brief, p.119-120.

217. With respect to claim 71, whether any of the applied art suggests the claimed invention as a

solution to the problem of computer access for individuals with cerebral palsy of the severity shown on the Video Tape.

This issue has already been discussed in connection with claim 19 above.

Independent claim 72

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218. With respect to claim 72, whether the new result of **accommodating overshoot** shows the claimed invention as a whole to be nonobvious.

The Answer does not address issue 333 in the Amended Appeal Brief, p.120.

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219. With respect to claim 72, whether any of the applied art suggests the claimed invention as a solution to the problem of computer access for individuals with cerebral palsy of the severity shown on the Video Tape.

This issue has already been discussed in connection with claim 19 above.

- 15
220. With respect to claim 72, whether Ito teaches selectable regions **adjacent** a confiner.

This issue has already been discussed in connection with claim 19 above.

221. With respect to claim 72, whether Ito teaches selectable regions **adjacent** a confiner and **on** the display.

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The Answer does not address issue 335 in the Amended Appeal Brief, p.120.

222. With respect to claim 72, whether the proposed combination teaches circumscribing selectable regions **on** the display.

This issue has already been discussed in connection with claim 20 above.

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223. With respect to claim 72, whether the Final provides a motivation to make the proposed modification of Ito.

The Answer does not address issue 337 in the Amended Appeal Brief, p.120.

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224. With respect to claim 72, whether Ito and Lazzaro are combinable.

This issue has already been discussed in the section entitled "Issues Concerning Many Claims" above.

Independent claim 73 and its dependent claims

225. With respect to claim 73, whether he proposed combination teaches circumscribing selectable regions **on the display**.

This issue has already been discussed in connection with claim 20 above.

226. With respect to claim 73, whether the Final provides a motivation to make the proposed modification of Ito.

The Answer does not address issue 340 in the Amended Appeal Brief, p.121.

227. With respect to claim 73, whether Ito teaches selectable regions **adjacent** a confiner.

This issue has already been discussed in connection with claim 19 above.

228. With respect to claim 73, whether Ito teaches selectable regions **adjacent** a confiner and **on the display**.

The Answer does not address issue 342 in the Amended Appeal Brief, p.121.

229. With respect to claim 71, whether any of the new results show the claimed invention as a whole to be nonobvious.

The Answer does not address issues 343-347 in the Amended Appeal Brief, p.121-122.

230. With respect to claim 71, whether any of the applied art suggests the claimed invention as a solution to the problem of computer access for individuals with cerebral palsy of the severity shown on the Video Tape.

This issue has already been discussed in connection with claim 19 above.

231. With respect to claim 73, whether Ito, as combined with Baker, and Golding are combinable.

The Answer does not address issue 348 in the Amended Appeal Brief, p.122.

232. With respect to claim 73, whether Ito and Lazzaro are combinable.

This issue has already been discussed in the section entitled "Issues Concerning Many Claims" above.

233. With respect to claim 73, whether Ito and Baker are combinable.

The Answer does not address issue 350 in the Amended Appeal Brief, p.122.

234. With respect to claim 73, whether the Final evidences improper hindsight reconstruction of references.

5 This issue has already been discussed in the section entitled "Issues Concerning Many Claims" above.

235. With respect to claim 104, whether the proposed combination teaches selection responsive to the durations of a **plurality of successive periods** of intersection.

10 This issue has already been discussed in connection with claim 53 above.

236. With respect to claim 104, whether Choi is **pertinent prior art**.

This issue has already been discussed in connection with claim 134 above.

- 15 237. With respect to claim 104, whether Choi teaches a **dwel time indicator**.

This issue has already been discussed in connection with claim 134 above.

238. With respect to claim 104, whether Choi teaches a "means for indicating the difference between the predetermined period and the total duration of the plurality of periods".

20 The Answer does not address issue 355 in the Amended Appeal Brief, p.123.

239. With respect to claim 112, whether Ito teaches selectable regions **adjacent** a confiner.

This issue has already been discussed in connection with claim 19 above.

25 Independent claim 74

240. With respect to claim 74, whether he proposed combination teaches circumscribing selectable regions **on** the display.

This issue has already been discussed in connection with claim 20 above.

- 30 241. With respect to claim 74, whether the Final provides a motivation to make the proposed modification of Ito.

The Answer does not address issue 358 in the Amended Appeal Brief.

242. With respect to claim 74, whether Ito teaches selectable regions **adjacent** a confiner.  
This issue has already been discussed in connection with claim 19 above.

243. With respect to claim 74, whether Ito teaches selectable regions **adjacent** a confiner and **on** the display.  
The Answer does not address issue 360 in the Amended Appeal Brief, p.124.

244. With respect to claim 74, whether any of the new results show the claimed invention as a whole to be nonobvious.  
The Answer does not address issues 361-365 in the Amended Appeal Brief, p.124-125.

245. With respect to claim 74, whether any of the applied art suggests the claimed invention as a solution to the problem of computer access for individuals with cerebral palsy of the severity shown on the Video Tape.  
This issue has already been discussed in connection with claim 19 above.

Independent claim 76 and its dependent claims

246. With respect to claim 76, whether the claim is patentable.  
The Answer does not address issues 366, 376, 368 or 370 in the Amended Appeal Brief, p.125.

247. With respect to claim 76, whether he proposed combination teaches circumscribing selectable regions **on** the display.  
This issue has already been discussed in connection with claim 20 above.

248. With respect to claim 77, whether Ito teaches **deleting** from a document a sequence having a common attribute for optical recognition purposes.  
The Answer does not address issue 371 in the Amended Appeal Brief.

Independent claim 89

249. With respect to claim 89, whether he proposed combination teaches circumscribing selectable regions **on** the display.  
This issue has already been discussed in connection with claim 20 above.

250. With respect to claim 89, whether the Final provides a motivation to make the proposed modification of Ito.

The Answer does not address issue 373 in the Amended Appeal Brief, p.126.

5 251. With respect to claim 89, Ito teaches selection from a **plurality of pluralities of selectable regions**.

This issue has already been discussed in the section entitled "Issues Concerning Many Claims" above.

10 252. With respect to claim 89, whether the proposed combination teaches a **clipper**.

This issue has already been discussed in connection with claim 61 above.

Independent claim 164

15 253. With respect to claim 164, whether the proposed combination teaches circumscribing selectable regions **on** the display.

This issue has already been discussed in connection with claim 20 above.

254. With respect to claim 164, whether the Final provides a motivation to make the proposed modification of Ito.

20 The Answer does not address issue 377 in the Amended Appeal Brief, p.127.

255. With respect to claim 164, whether Ito teaches simultaneously displayed **menu options on** the display.

The Answer does not address issue 378 in the Amended Appeal Brief, p.127.

25 256. With respect to claim 164, whether Baker teaches away from **simultaneously** displayed menu options on the display.

The Answer does not address issue 379 in the Amended Appeal Brief, p.127.

30 257. With respect to claim 164, whether Ito teaches selectable regions **adjacent** a confiner.

This issue has already been discussed in connection with claim 19 above.

258. With respect to claim 164, whether Ito teaches selectable regions **adjacent** a confiner and **on**

the display.

The Answer does not address issue 381 in the Amended Appeal Brief, p.127.

- 5      259. With respect to claim 164, whether any of the new results show the claimed invention as a whole to be nonobvious.

The Answer does not address issues 382-386 in the Amended Appeal Brief, p.127.

- 10      260. With respect to claim 164, whether any of the applied art suggests the claimed invention as a solution to the problem of computer access for individuals with cerebral palsy of the severity shown on the Video Tape.

This issue has already been discussed in connection with claim 19 above.

- 15      261. With respect to claim 164, whether Ito, as combined with Baker, and Golding are combinable. The Answer does not address issue 387 in the Amended Appeal Brief, p.128.

262. With respect to claim 164, whether Ito and Lazzaro are combinable.

This issue has already been discussed in the section entitled "Issues Concerning Many Claims" above.

### III. CONCLUSION

Appellant respectfully urges that each of rejection of each pending claims is improper.  
Reversal of each of the rejections is respectfully requested.

Respectfully submitted,



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